

MEMORANDUM

TO: Kinsey O'Shea, Development Administrator

FROM: Randy Formica, Director, Engineering and GIS
Joshua Middleton, Town Engineer

DATE: May 17, 2019

SUBJECT: The Standards – Transportation Comments

Supplemental to this Memorandum - The Standards – Transportation Comments, dated April 11, 2019

Notable Changes:

The following sections of the rezoning application are notable as they pertain to the Transportation Comments Memorandum dated April 11, 2019. These sections have been added subsequent to the previous review and include the following;

- Left Turn Lane Warrant – Proposing to retain the current configuration of N. Main Street, with minimal changes, that do not include left turn lanes though warranted by the traffic analysis.
- Existing Conditions – Providing information regarding the current configuration of N. Main Street and lack of left turn lanes or dedicated left movements for existing development entrances and road intersections.
- Left Turn Lane Options – Describing two (2) options that were “evaluated”, to include widening N. Main Street and a reconfiguration of the existing road section. The evaluation of these options resulted in a change to the proposed site entrance but is used in justification for maintaining N. Main Street as-is. This section is discussed in additional detail below.

The addition of these sections within the rezoning application, though providing additional information, do not represent a substantial change to the previous review comments. However, as a result of the change made at the site access entrance, the Traffic Impact Analysis was updated accordingly. The analysis and results remain largely unchanged save for the following results which focus on the site access entrance and Montgomery St. intersection. The changes are summarized as follows;

- With the revision to the site access, restricting left turn movements, the average delay for the proposed site access has been improved with the maximum delay being approximately 30 seconds and functioning at a LOS of D. This represents a 50% drop in maximum delay, from the previous layout (60 seconds at a LOS F), which will greatly improve the functional nature of the entrance and will decrease the queuing length within the site.
- The adjustment of the site entrance on N. Main St., restricting left turns from the development, triggered the need to redistribute the anticipated turning movements. Right turn movements were increased significantly and a portion of traffic moved to the second entrance on Montgomery Street. These alterations combine to increase the maximum average delay of the stop controlled approach at the N. Main St. / Montgomery St. intersection. The maximum average delay increased to 10.4 seconds. This represents a significant (74%) increase in delay and an increase from LOS B to LOS C but would continue to meet the requirements Section 5-307 of the Subdivision Ordinance. Additionally, the queuing analysis indicates an increase to 86 feet, up from 70 feet, for the northbound traffic and further increasing the potential to backup traffic along North Main Street. However, it continues to meet the requirements Section 5-307 of the Subdivision Ordinance.

Other minor adjustments were made to the traffic analysis to include some additional traffic inputs requested per recent development. These minor adjustments did not have a significant impact on the analysis or results.

Left Turn Lane Options

- Right-of-Way Widening (Option 1): This option does create the need for additional right-of-way that could present significant challenges. However, this option would achieve the appropriate adjustment, to existing infrastructure, warranted by the proposed development traffic.
- Northbound Through Lane to Turn Lane Conversion (Option 2): This option does not meet the fundamental requirements established by Access Management Guidelines, and Turn Lane Warrant Analysis, as it drastically diminishes northbound capacity rather than sustaining it. Additionally, in brief discussions with Towns traffic signal consultant, this configuration would require a significant change to the Progress St. / N. Main St. signal that would likely create a substantial impact upon the LOS and queue lengths that would extend back to the N. Main St. / Prices Fork round-about.

Additional Review:

The Town has recently solicited the services of a consultant traffic engineering firm to provide additional comment on the updated Traffic Impact Analysis (May 2019). However, this supplemental review has not been completed prior to this memorandum. Once completed the results of this supplemental review will be provided to help better inform the assessment of this traffic analysis and the overall impact of this proposed development on the road network and traffic infrastructure.